UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,554	07/05/2001	Arul A. Menezes	M61.12-0366	1641

27366	7590	07/12/2006

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EXAMINER
VO, HUYEN X

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/899,554	MENEZES ET AL.
	Examiner	Art Unit	
	Huyen X. Vo	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 July 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-54* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/4/2002*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2.   Claims 1-41 are rejected under 35U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

3.   Claims 1-41 are drawn to a "program" *per se* as recited in the preamble (computer-implemented method), and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither

computer components nor statutory processes, as they are not "acts" being performed.

Such claimed computer programs do not define any structural and functional

interrelationships between the computer program and other claimed elements of a

computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed
> publication in this or a foreign country or in public use or on sale in this country, more than one year prior to
> the date of application for patent in the United States.

5.   Claims 42-54 are rejected under 35 U.S.C. 102(b) as being anticipated by

Takeda et al. (US 5477450).

6.   Regarding claim 42, Takeda et al. disclose a computer readable media having

information thereon for a computer-implemented machine translation system to

translate text from a first language to a second language, the information comprising: a

plurality of mappings, each mapping indicative of associating a dependency structure of

the first language with a dependency structure of the second language (*col. 6, lines 60-

67, "main element has a one-for-many correspondence to the constituents" indicates

mappings between source language and target language, example shown in col. 7,

lines 45-49, where each word in the source language corresponds to more than one

words in the target language*), wherein at least some of the mappings correspond to

dependency structures of the first language having varying context with some common

elements (*col. 10, lines 5-17, different word combinations have different context*), and

associated dependency structures of the second language to the dependency

structures of the first language also having varying context with some common

elements (*col. 10, lines 5-17, different word combinations have different context*).

7.   Regarding claims 43-44, Takeda et al. further disclose the computer readable

media of claim 42, wherein the dependency structures of said at least some of the

mappings have two and three common elements in each of the languages (*col. 10, lines

5-17, col. 7, lines 45-49*).

8.   Regarding claim 45, Takeda et al. further disclose the computer readable media

of claim 42 wherein the information includes information indicative of a size of each

dependency structure of the first language (*graph structure 1 in col. 7, lines 10-17

indicates the size of the dependency structure of the first language*).

9.   Regarding claim 46, Takeda et al. further disclose the computer readable media

of claim 42 wherein the information includes information indicative of an extent of a

complete alignment of the dependency structures of the first language originating from a

larger dependency structure (*col. 7, lines 45-54, one to many alignments between

source language and target language*).

10.   Regarding claim 47, Takeda et al. further disclose the computer readable media
of claim 42 wherein the information includes information indicative of a frequency the
dependency structure occurred in training data (*col. 9, lines 15-35*).

11.   Regarding claim 48, Takeda et al. further disclose the computer readable media
of claim 42 wherein the information includes information indicative of a type of training
data (*it is English language dictionary since translation from Japanese into English*).

12.   Regarding claim 49, Takeda et al. further disclose the computer readable media
of claim 42 wherein the information includes information indicative of an extent of the
dependency structures originating from a complete parse of the corresponding training
data (*col. 7, lines 45-54, one to many correspondence alignments and col. 8, line 1 to
col. 10, line 27 further processes upon one to many correspondence alignments to
determine the best correspondence using rules stored in database*).

13.   Regarding claim 50, Takeda et al. further disclose the computer readable media
of claim 42 wherein the information includes information indicative of score related to
confidence of alignment of the corresponding dependency structure (*col. 10, lines 31-
49, probabilistic determination*).

14.   Regarding claims 51-52, Takeda et al. further disclose the computer readable
media of claim 42 wherein at least some of the mappings are indicative of

corresponding dependency structures having an element that can vary (*col. 8, lines 1-5 and graph structure 1 in col. 7*), wherein the element comprises an under-specified node indicating a part of speech but no specific lemma (*col. 7, lines 45-49*).

15.   Regarding claims 53-54, Takeda et al. further disclose the computer readable media of claim 51 wherein the element comprises an under-specified node indicating neither a specified part of speech nor a specific lemma (*figure 3D*), and wherein the element comprises an under-specified node indicating at least one specific syntactic or semantic feature but no specific lemma (*referring to figures 3A-D*).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ting (US 5930746) and Nagao et al. (US 5424947) are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
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USPTO Customer Service Representative or access to the automated information
system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HXV

7/6/2006

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RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER